CLAIMS AMENDMENTS:

Claims 1-21 (cancelled)

- 22. (currently amended) A method for disinfecting a microtome-cryostat having a microtome, the cryostat having a closed cryostat chamber, the method comprising the steps of:
 - a) subjecting the cryostat to a defrosting phase;
 - Introducing a vaporous disinfectant into the closed cryostat chamber;
 - waiting an effective time for action of the disinfectant;
 - d) generating a temperature difference inbetween the microtome and the cryostat chamber following step c);
 and
 - discharging disinfectant deposited in a colder region of the cryostat chamber in response to step d).
- 23. (previously presented) The method of claim 22, wherein, following step c), a temperature of a cryostat refrigerator is reduced to below 0°C in a cooling phase until at least a majority of disinfectant has deposited on the refrigerator, the refrigerator being subsequently thawed to discharge the disinfectant from the cryostat chamber with the assistance of a collecting device.
- 24. (previously presented) The method of claim 22, wherein the microtome is heated after step c).

- (previously presented) The method of claim 24, wherein a heating temperature clearly exceeds a surrounding temperature of the cryostat.
- 26. (previously presented) The method of claim 22, wherein the vaporous disinfectant is blown into the cryostat chamber.
- 27. (previously presented) The method of claim 22, wherein the disinfectant is evaporated using ultrasound.
- 28. (previously presented) The method of claim 22, wherein the cryostat is heated to at least a surrounding temperature following step a).
- (previously presented) The method of claim 28, wherein a heating period is followed by a temperature balancing time.
- (previously presented) The method of claim 28, wherein heating is effected using a microtome heater.
- (previously presented) The method of claim 22, wherein cutting waste is mechanically removed prior to step b).
- (previously presented) The method of claim 31, wherein the cutting waste is suctioned off.
- (previously presented) The method of claim 22, wherein the vaporous disinfectant is suctioned into a suction system to also disinfect same.
- 34. (currently amended) A device for disinfecting a microtome-cryostat having a microtome, the device comprising:

means for subjecting a closed cryostat chamber to a defrosting phase:

means for waiting an effective time for action of the disinfectant:

means for generating, subsequent to elapse of said effective time, a temperature difference inhetween said microtome and said cryostat chamber; and

means for discharging disinfectant deposited in a colder region of said cryostat chamber.

- 35. (previously presented) The device of claim 34, the device comprising a microtome in said cryostat chamber, a refrigerator, and a control communicating with said disinfectant introduction means and with said effective time waiting means, wherein said control also generates said temperature difference in said cryostat chamber through heating and/or cooling, wherein a collecting device is disposed in a colder region to remove deposited disinfectant.
- 36. (previously presented) The device of claim 35, wherein said control is designed to reduce a temperature of said refrigerator of the cryostat in a cooling phase to below 0°C after said effective time until at least a majority of disinfectant has deposited on said refrigerator, said refrigerator being subsequently thawed to discharge disinfectant from said cryostat chamber using said collecting device.
- (previously presented) The device of claim 35, wherein said microtome has a heater and said control is designed to heat said microtome after said effective time.

- 38. (previously presented) The device of claim 35, wherein said refrigerator comprises a heater and said control is designed to switch on said heater to accelerate thawing.
- (previously presented) The device of claim 35, wherein said means for introducing a vaporous disinfectant comprises a blower for introducing the disinfectant into said cryostat chamber.
- (previously presented) The device of claim 35, wherein said disinfectant introduction means comprises means for vaporizing the disinfectant using ultrasound.
- (previously presented) The device of claim 35, wherein said disinfectant introduction means comprises a disinfectant supply container.
- (previously presented) The device of claim 41, further comprising a valve for controlling a disinfectant level.
- (previously presented) The device of claim 35, wherein said collecting device discharges ilquid, dripping from said refrigerator, out of said cryostat chamber via an outlet.